

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended): A suspension that can be used to generate a current of electrons, which suspension comprises ~~a polypeptide, wherein the polypeptide is entrapped in a hollow particle~~a plurality of hollow particles in electrically conductive contact, said hollow particles comprise a substrate permeable and electrically conductive outer shell and entrapped therein a redox-reaction catalyzing enzyme catalyzing an enzymatic conversion of said substrate in said hollow particles thereby liberating electrons.

2-6. (Cancelled).

7. (Currently Amended): The suspension according to ~~claim 6, wherein the hollow particle comprises conductive polymer~~claim 1, wherein the substrate permeable and electrically conductive outer shell comprises a polymer.

8. (Currently Amended): The suspension according to claim 7, wherein the ~~hollow particle~~polymer comprises a block-copolymer.

9. (Original): The suspension according to claim 8, wherein the block-copolymer comprises a hydrophobic polystyrene block and a hydrophilic polyisocyanopeptide.

10. (Previously Presented): The suspension according to claim 8, wherein the block-copolymer comprises polystyrene-*b*-poly(L-isocyanoalanine(2-thiophen-3-yl-ethyl)amide) (PS-PIAT).

11. (Original): The suspension according to claim 8, wherein side groups present on the block-copolymer are polymerized.

12. (Original): The suspension according to claim 10, wherein the thiophene side groups present in the side chain of polystyrene-*b*-poly(L-isocyanoalanine(2-thiophen-3-yl-ethyl)amide) are polymerized.

13. (Currently Amended): The suspension according to claim 1, wherein the enzyme comprises a polypeptide, wherein the polypeptide is linked to the inner side of the hollow ~~particle~~particles.

14-18. (Cancelled).

19. (Currently Amended): The suspension according to ~~claim 16~~claim 1, wherein the enzyme is glucose oxidase.

20. (Currently Amended): The suspension according to claim 19, wherein the hollow ~~particle~~particles are permeable to a substrate of glucose oxidase.

21. (Currently Amended): The suspension according to claim 20, wherein the hollow ~~particle~~is permeable tosubstrate is glucose.

22. (Currently Amended): The suspension according to claim 1, wherein the hollow ~~particle~~particles are embedded in a gel-like structure.

23. (Currently Amended): The suspension according to claim 1, wherein the hollow ~~particle~~particles are embedded in a glucose solution.

24. (Currently Amended): The suspension according to claim 1, comprising a matrix, for example a linear conductive polymer, to contact the hollow ~~particle~~particles.

25. (Currently Amended): The suspension according to ~~elaim—2~~claim 1, comprising a matrix, for example a linear conductive polymer, to cross-link at least one hollow particle to another hollow particle.

26. (Previously Presented): The suspension according to claim 1, comprising electron carriers such as ferrocene derivatives and viologen derivatives.

27. (Currently Amended): A battery having an electrolyte suspension comprising a plurality of hollow particles in electrically conductive contact, said hollow particles comprise a substrate permeable and electrically conductive outer shell and entrapped therein a redox-reaction catalyzing enzyme catalyzing an enzymatic conversion of said substrate in said hollow particles thereby liberating electrons~~polypeptide wherein the polypeptide is entrapped in a hollow particle.~~

28. (Currently Amended): A nano-battery for the use in combination with a microchip having an electrolyte suspension comprising a plurality of hollow particles in electrically conductive contact, said hollow particles comprise a substrate permeable and electrically conductive outer shell and entrapped therein a redox-reaction catalyzing enzyme catalyzing an enzymatic conversion of said substrate in said hollow particles thereby liberating electrons~~polypeptide, wherein the polypeptide is entrapped in a hollow particle.~~

29. (Cancelled).

30. (Currently Amended): A fuel cell, comprising: an anode compartment including an anode; a cathode compartment including a cathode; and disposed within said anode compartment, within said cathode compartment, or between said anode compartment and said cathode compartment, the suspension comprising a plurality of hollow particles in electrically conductive contact, said hollow particles comprise a substrate permeable and electrically conductive outer shell and entrapped therein a redox-reaction catalyzing enzyme catalyzing an enzymatic conversion of said substrate in said hollow particles thereby liberating electrons~~polypeptide, wherein the polypeptide is entrapped in a hollow particle.~~

31. (Currently Amended): A device for detection of a ~~solute-substrate~~ comprising a suspension comprising a plurality of hollow particles in electrically conductive contact, said hollow particles comprise a substrate permeable and electrically conductive outer shell and entrapped therein a redox-reaction catalyzing enzyme catalyzing an enzymatic conversion of said substrate in said hollow particles thereby liberating electrons~~polypeptide, wherein the polypeptide is entrapped in a hollow particle.~~

32. (Currently Amended): The device according to claim 31, wherein the ~~solute-substrate~~ is glucose.

33. (Currently Amended): A method of producing electrical power comprising generating a current in a suspension comprising a plurality of hollow particles in electrically conductive contact, said hollow particles comprise a substrate permeable and electrically conductive outer shell and entrapped therein a redox-reaction catalyzing enzyme catalyzing an enzymatic conversion of said substrate in said hollow particles thereby liberating electrons~~polypeptide, wherein the polypeptide is entrapped in a hollow particle.~~

34. (Currently Amended): A method for preparing a ~~polypeptide-suspension~~ comprising a plurality of hollow particles in electrically conductive contact, said hollow particles comprise a substrate permeable and electrically conductive outer shell and entrapped therein a

redox-reaction catalyzing enzyme catalyzing an enzymatic conversion of said substrate in said hollow particles thereby liberating electrons, wherein the polypeptide is entrapped in a hollow particle comprising the steps of:

(a) making an aqueous solution of bis(2,2'-bipyridine)ruthenium(II)bis(pyrazolyl);

(b) injecting a solution containing polystyrene-*b*-poly(L-isocyanoalanine(2-thiophen-3-yl-ethyl)amide) in THF into the solution made in step (a).

35. (Currently Amended): The method according to claim 34, further comprising:

(c) placing the dispersion made in step (b) at 60°C;

(d) cooling the dispersion to room temperature; and

(e) ~~filter~~filtering the dispersion of step (d) using a filter with a cutoff of 100 kDa.

36. (New): The suspension according to claim 1, wherein the hollow particles are embedded in an electrically conductive matrix.

37. (New): The suspension according to claim 36, wherein the electrically conductive matrix comprises ferrocene derivatives and/or viologen derivatives.